

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

- 1           1. (Currently amended) A packet buffer control system comprising:  
2           a memory storing bytes of data in lines;  
3           a packet buffer, the packet buffer divided into a first section and a second  
4           section, each section for storing bytes of data in lines; and  
5           a packet buffer controller that receives a line of data from said memory,  
6           along with a tag indicating a shift value, wherein the packet buffer controller is  
7           configured to shift and shifting said received line of data in accordance with the  
8           shift value for storage in said first section and in said second section and to store  
9           the resulting shifted line of data simultaneously ~~wherein storage~~ in said first  
10          section and in said second section ~~occur simultaneously~~.  
  
1           2. (Original) The packet buffer control system of claim 1 wherein said  
2           packet buffer controller comprises a wrap-around shift register in which said  
3           received line of data is shifted for storage.  
  
1           3. (Currently amended) The packet buffer control system of claim 1 further  
2           comprising ~~means~~ a mechanism for masking a line in said packet buffer.  
  
1           4. (Currently amended) The packet buffer control system of claim 1  
2           wherein ~~storage of a~~ the packet buffer controller is configured to store the shifted  
3           line of data in the first section and in the second section ~~is accomplished~~ in a

4 single clock cycle.

1 5. (Original) The packet buffer control system of claim 1 wherein the  
2 packet buffer controller further includes logic that reads a first output data line  
3 from the first section and then reads a second output data line from the second  
4 section for transmission to a network.

1 6. (Previously presented) A method of communicating alignment  
2 information comprising:  
3 preparing read requests for lines of data to fill a packet payload;  
4 obtaining a shift value corresponding to any misalignment between the  
5 lines of data and the packet payload;  
6 sending a read request including a tag with the shift value, said tag being  
7 for inclusion in a response to the read request;  
8 receiving at a packet buffer controller the response having a line of data  
9 and the tag; and  
10 shifting the line of data in accordance with the shift value in the tag and  
11 writing the shifted line of data into a first section and a second section of the  
12 packet buffer, wherein writing the shifted line of data into said first section and  
13 said second section occur simultaneously.

1 7. (Original) The method of claim 6 wherein writing the shifted line of  
2 data is accomplished in a single clock cycle.

1 8. (Original) The method of claim 6 wherein said act of writing writes  
2 bytes of the shifted line of data that are in unmasked positions of the packet buffer  
3 into the packet buffer while bytes of the shifted line of data in masked positions of  
4 the packet buffer do not make changes to the masked positions of the packet

5 buffer.

1 9. (Original) The method of claim 6 further including:  
2 reading a first output data line from said first section and then reading a  
3 second output data line from said second section for transmission to a network.